

Test Report No. 7191009558-EEC11/03
dated 30 Jun 2011

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FORMAL REPORT ON TESTING IN ACCORDANCE WITH
47 CFR FCC Parts 15B & C : 2011
OF A
miCoach Connect (for PC/MAC)
[Model : V42036]
[FCC ID : ZLGUSBDONGLE]

TEST FACILITY

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QUOTATION NUMBER

219132059

JOB NUMBER

7191009558

TEST PERIOD

20 Jun 2011 – 27 Jun 2011

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The results reported herein have been performed in accordance with the laboratory's terms of accreditation under the Singapore Accreditation Council - Singapore Laboratory Accreditation Scheme. Tests/Calibrations marked "Not SAC-SINGLAS Accredited" in this Report are not included in the SAC-SINGLAS Accreditation Schedule for our laboratory.

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ANNEX A

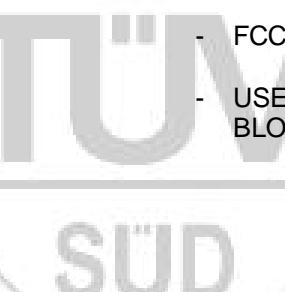
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TEST SUMMARY

The product was tested in accordance with the customer's specifications.

Test Results Summary

Test Standard	Description	Pass / Fail
47 CFR FCC Part 15: 2011		
15.107(a), 15.207	Conducted Emissions	Pass
15.109(a), 15.205, 15.209	Radiated Emissions (Spurious Emissions inclusive Restricted Bands Requirement)	Pass
15.249(a)	Radiated Emissions (Fundamental and Harmonics)	Pass

Notes

- Three channels as listed below, which respectively represent the lower, middle and upper channels of the Equipment Under Test (EUT) were chosen and tested. For each channel, the EUT was configured to operate in the test mode.

<u>Transmit Channel</u>	<u>Frequency (MHz)</u>
Channel 0	2.402
Channel 39	2.441
Channel 78	2.480

- The EUT is a Class B device when in non-transmitting state and meets the 47 CFR FCC Part15B Class B requirements.
- All test measurement procedures are according to ANSI C63.4: 2003.
- The maximum measured RF power of the Equipment Under Test is -9.8dBm.

Modifications

No modifications were made.



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PRODUCT DESCRIPTION

Description	: The Equipment Under Test (EUT) is a miCoach Connect (for PC/MAC) . A 2.4GHz Transceiver with ANT+ communication link.
Factor (ies)	: PCA Technology (M) Sdn Bhd 12 & 12B Jalan Bayu, Kawasan Perindustrian Hasil 81200 Johor Bahru, Johor Malaysia
Manufacturer	: Adidas AG World of Sports, Adi-Dassler-Straße 1, D-91074 Herzogenaurach Germany
Model Number	: V42036
FCC ID	: ZLGUSBDONGLE
Serial Number	: Nil
Microprocessor	: Nil
Operating / Transmitting Frequency	: Low 2.402GHz; Mid 2.441GHz; High 2.48GHz Total number of channels = 79
Clock / Oscillator Frequency	: 16MHz
Modulation	: Gaussian Frequency Shift Keying (GFSK)
Antenna Gain	: -1.0 dBi
Port / Connectors	: USB Connector
Rated Input Power	: 5V x 100mA
Accessories	: Bundle with SDM or SDM and IPHONE DONGLE USB Connector



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SUPPORTING DESCRIPTION DESCRIPTION

Equipment Description (Including Brand Name)	Model, Serial & FCC ID Number	Cable Description (List Length, Type & Purpose)
HP Laptop	M/N: Probook 4421s S/N: CNF0461FYW FCC ID: Nil	2.00m unshielded power cable
HP Power Adapter	M/N: PPP0124-S S/N: F12941039209960 FCC ID: Nil	2.00m unshielded power cable
Agilent Spectrum Analyzer	M/N: E4440A S/N: MY45304764 FCC ID: Nil	2.00m unshielded power cable
HP Photosmart Printer	M/N: 7260 S/N: CN4683Z424 FCC ID: Nil	2.00m unshielded power cable 1.50 m USB cable
HP Power Adapter	M/N: 0950-4401 S/N: 460462023 FCC ID: Nil	2.00m unshielded power cable
HP Deskjet Printer	M/N: 6940 S/N: CN4683Z424 FCC ID: Nil	2.00m unshielded power cable 1.50 m USB cable
HP Power Adapter	M/N: 0957-2105 S/N: 357858098 FCC ID: Nil	2.00m unshielded power cable



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EUT OPERATING CONDITIONS

47 CFR FCC Part 15

- 1. Conducted Emissions**
- 2. Radiated Emissions (Spurious Emissions inclusive Restricted Bands Requirement)**
- 3. Radiated Emissions (Fundamental and Harmonics)**

The EUT was exercised by operating in maximum continuous transmission in test mode, i.e transmitting at lower, middle and upper channels respectively at one time.





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CONDUCTED EMISSION TEST

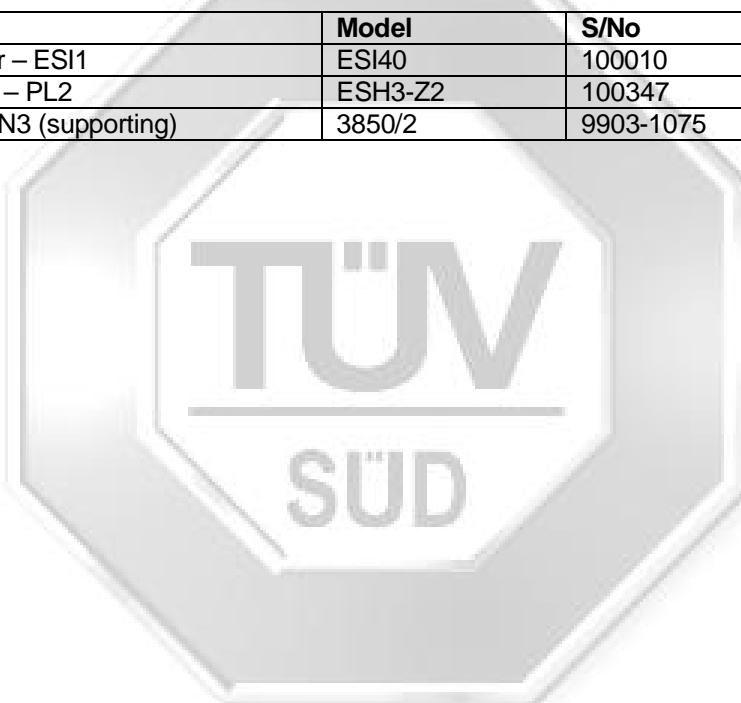
47 CFR FCC Parts 15.107(a) and 15.207 Conducted Emission Limits

Frequency Range (MHz)	Limit Values (dB μ V)	
	Quasi-peak (QP)	Average (AV)
0.15 - 0.5	66 – 56 *	56 – 46 *
0.5 - 5.0	56	46
5.0 - 30.0	60	50

* Decreasing linearly with the logarithm of the frequency

47 CFR FCC Parts 15.107(a) and 15.207 Conducted Emission Test Instrumentation

Instrument	Model	S/No	Cal Due Date
R&S Test Receiver – ESI1	ESI40	100010	06 Jun 2012
R&S Pulse Limiter – PL2	ESH3-Z2	100347	11 May 2012
EMCO LISN – LISN3 (supporting)	3850/2	9903-1075	29 Jul 2011



CONDUCTED EMISSION TEST

47 CFR FCC Parts 15.107(a) and 15.207 Conducted Emission Test Setup

1. The EUT and supporting equipment were set up in accordance with the requirements of the standard on top of a 1.5m x 1m x 0.8m high, non-metallic table.
2. The power supply for the EUT was fed through a $50\Omega/50\mu\text{H}$ EUT LISN, connected to filtered mains.
3. The RF OUT of the EUT LISN was connected to the EMI test receiver via a low-loss coaxial cable.
4. All other supporting equipment were powered separately from another LISN.

47 CFR FCC Parts 15.107(a) and 15.207 Conducted Emission Test Method

1. The EUT was switched on and allowed to warm up to its normal operating condition.
2. A scan was made on the NEUTRAL line over the required frequency range using an EMI test receiver.
3. High peaks, relative to the limit line, were then selected.
4. The EMI test receiver was then tuned to the selected frequencies and the necessary measurements made with a receiver bandwidth setting of 9kHz. Both Quasi-peak and Average measurements were made.
5. Steps 2 to 4 were then repeated for the LIVE line.

Sample Calculation Example

At 20 MHz

Q-P limit (Class B) = $1000 \mu\text{V} = 60.0 \text{ dB}\mu\text{V}$

Transducer factor of LISN, pulse limiter & cable loss at 20 MHz = 11.2 dB

Q-P reading obtained directly from EMI Receiver = $40.0 \text{ dB}\mu\text{V}$
(Calibrated for system losses)

Therefore, Q-P margin = $40.0 - 60.0 = -20.0$

i.e. 20.0 dB below Q-P limit



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CONDUCTED EMISSION TEST



Conducted Emissions Test Setup (Front View)



Conducted Emissions Test Setup (Rear View)



CONDUCTED EMISSION TEST

47 CFR FCC Parts 15.107(a) and 15.207 Conducted Emission Results

Test Input Power	110V 60Hz (via connected host)	Temperature	22°C
Line Under Test	AC Mains	Relative Humidity	45%
		Atmospheric Pressure	1030mbar
		Tested By	Zechs Ng Chee Siong

Frequency (MHz)	Q-P Value (dB μ V)	Q-P Margin (dB)	AV Value (dB μ V)	AV Margin (dB)	Line	Channel
0.8933	30.3	-25.7	23.4	-22.6	Live	78
1.2434	26.6	-29.4	21.3	-24.7	Live	78
1.7022	31.7	-24.3	27.2	-18.8	Live	78
1.8835	30.1	-25.9	22.6	-23.4	Neutral	78
1.9261	29.8	-26.2	24.0	-22.0	Live	78
2.1506	24.6	-31.4	19.6	-26.4	Live	78

Notes

1. All possible modes of operation were investigated from 150kHz to 30MHz. Only the worst case emissions measured, using the correct CISPR detectors, are reported. All other emissions were relatively insignificant.
2. A "-ve" margin indicates a PASS as it refers to the margin present below the limit line at the particular frequency.
3. EMI receiver Resolution Bandwidth (RBW) and Video Bandwidth (VBW) settings:
9kHz - 30MHz
RBW: 9kHz VBW: 30kHz
4. Conducted Emissions Measurement Uncertainty
All test measurements carried out are traceable to national standards. The uncertainty of the measurement at a confidence level of approximately 95%, with a coverage factor of 2, in the range 9kHz – 30MHz is ± 3.0 dB.



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RADIATED EMISSION TEST

47 CFR FCC Part 15.205 Restricted Bands

MHz	MHz	MHz	GHz
0.090	-	0.110	16.42
0.495	-	0.505	16.69475
2.1735	-	2.1905	16.80425
4.125	-	4.128	25.5
4.17725	-	4.17775	37.5
4.20725	-	4.20775	73
6.215	-	6.218	74.8
6.26775	-	6.26825	108
6.31175	-	6.31225	123
8.291	-	8.294	149.9
8.362	-	8.366	156.52475
8.37625	-	8.38675	156.7
8.41425	-	8.41475	162.0125
12.29	-	12.293	167.72
12.51975	-	12.52025	240
12.57675	-	12.57725	322
13.36	-	13.41	335.4
			399.9
			608
			960
			1300
			1435
			1645.5
			1718.8
			2200
			2310
			2483.5
			2690
			3260
			3332
			3345.8
			3600
			410
			614
			1240
			1427
			1626.5
			1646.5
			1722.2
			2300
			2390
			2500
			2900
			3267
			3339
			3358
			4400
			4.5
			5.35
			7.25
			8.025
			9.0
			9.3
			10.6
			13.25
			14.47
			15.35
			17.7
			22.01
			23.6
			31.2
			36.43
			Above 38.6

47 CFR FCC Parts 15.109(a) and 15.209 Radiated Emission Limits

Frequency Range (MHz)	Quasi-Peak Limit Values (dBμV/m) @ 3m
30 - 88	40.0
88 - 216	43.5
216 - 960	46.0
Above 960	54.0*

* Above 1GHz, average detector was used. A peak limit of 20dB above the average limit does apply.

47 CFR FCC Parts 15.109(a) and 15.209 Radiated Emission Test Instrumentation

Instrument	Model	S/No	Cal Due Date
Rohde & Schwarz EMI Test Receiver (20Hz – 26.5GHz)	ESMI	829179/002 829179/005	28 Jul 2011
TDK RF Solutions Hybrid Log Periodic Antenna (30MHz-3GHz)	HLP-3003C	130238	19 Mar 2012
TDK RF Solution Horn Antenna (1GHz-18GHz)	HRN-0118	130256	15 Mar 2012
Schwarzbeck Horn Antenna (2-18GHz) / Pre-amplifier assembly HAP-series	BBHA 9120 C/ HAP06-18W	00000004	25 Mar 2012
Sonoma Preamplifier (9kHz – 1GHz)	310N	270640	13 Sep 2011
Micro-Tronics Bluetooth Notch Filter (Stopband 2.4 - 2.5GHz)	BRM50701-02	007	13 Aug 2011
ETS Horn Antenna(18GHz-40GHz)(Ref)	3116	0004-2474	19 Apr 2012
Toyo Preamplifier (26.5GHz-40GHz)	HAP26-40W	00000005	19 Apr 2012

RADIATED EMISSION TEST

47 CFR FCC Parts 15.109(a) and 15.209 Radiated Emission Test Setup

1. The EUT and supporting equipment were set up in accordance with the requirements of the standard on top of a 1.5m X 1.0m X 0.8m high, non-metallic table.
2. The filtered power supply for the EUT and supporting equipment were tapped from the appropriate power sockets located on the turntable.
3. The relevant broadband antenna was set at the required test distance away from the EUT and supporting equipment boundary.

47 CFR FCC Parts 15.109(a) and 15.209 Radiated Emission Test Method

1. The EUT was switched on and allowed to warm up to its normal operating condition.
2. A prescan was carried out to pick the worst emission frequencies from the EUT. For EUT which is a portable device, the prescan was carried out by rotating the EUT through three orthogonal axes to determine which altitude and equipment arrangement produces such emissions.
3. The test was carried out at the selected frequency points obtained from the prescan in step 2. Maximization of the emissions, was carried out by rotating the EUT, changing the antenna polarization, and adjusting the antenna height in the following manner:
 - a. Vertical or horizontal polarisation (whichever gave the higher emission level over a full rotation of the EUT) was chosen.
 - b. The EUT was then rotated to the direction that gave the maximum emission.
 - c. Finally, the antenna height was adjusted to the height that gave the maximum emission.
4. A Quasi-peak measurement was made for that frequency point if it was less than or equal to 1GHz. For frequency point that above 1GHz, both Peak and Average measurements were carried out.
5. Steps 3 and 4 were repeated for the next frequency point, until all selected frequency points were measured.
6. The frequency range covered was from 30MHz to 10th harmonics of the EUT fundamental frequency, using the Bi-log antenna for frequencies from 30MHz up to 1GHz, and the Horn antenna above 1GHz.

Sample Calculation Example

At 300 MHz

Q-P limit (Class B) = 200 μ V/m = 46.0 dB μ V/m

Log-periodic antenna factor & cable loss at 300 MHz = 18.5 dB

Q-P reading obtained directly from EMI Receiver = 40.0 dB μ V/m
(Calibrated level including antenna factors & cable losses)

Therefore, Q-P margin = 40.0 - 46.0 = -6.0

i.e. 6 dB below Q-P limit

RADIATED EMISSION TEST



Radiated Emissions Test Setup (Front View)



Radiated Emissions Test Setup (Rear View)



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RADIATED EMISSION TEST

47 CFR FCC Parts 15.109(a) and 15.209 Radiated Emission Results

Test Input Power	110V 60Hz (via connected host)	Temperature	18°C
Test Distance	3m	Relative Humidity	58%
		Atmospheric Pressure	1040mbar
		Tested By	Jason Lai

Spurious Emissions ranging from 30MHz – 1GHz

Frequency (MHz)	Q-P Value (dB μ V/m)	Q-P Margin (dB)	Azimuth (Degrees)	Height (cm)	Polarisation (H/V)	Channel
30.7020	31.9	-8.1	92	102	V	78
68.2560	35.0	-5.0	71	102	V	78
162.7260	35.3	-8.2	178	195	H	78
498.6890	41.6	-4.4	41	137	H	78
510.7420	40.6	-5.4	41	122	H	78
834.9540	34.9	-11.1	47	140	H	78

Spurious Emissions 1GHz – 25GHz

Frequency (GHz)	Peak Value (dB μ V/m)	Peak Margin (dB)	Average Value (dB μ V/m)	Average Margin (dB)	Azimuth (Degrees)	Height (cm)	Pol (H/V)	Channel
1.2076	45.2	-28.8	32.4	-21.6	7	101	V	78
1.6228	41.4	-32.6	28.6	-25.4	350	399	V	78
1.9987	42.4	-31.6	30.3	-23.7	352	188	V	78
2.3971	45.2	-28.8	33.6	-20.4	7	101	V	78
4.9951	55.7	-18.3	44.4	-9.6	353	188	V	78
5.5674	50.9	-23.1	42.0	-12.0	351	399	H	78

RADIATED EMISSION TEST

Notes

1. All possible modes of operation were investigated. Only the worst case emissions measured, using the correct CISPR detectors, are reported. All other emissions were relatively insignificant.
2. Quasi-peak measurement was used for frequency measurement up to 1GHz. Average and peak measurements were used for emissions above 1GHz. The average measurement was done by averaging over a complete cycle of the pulse train, including the blanking interval as the pulse train duration does not exceed 0.1 second.
3. A "-ve" margin indicates a PASS as it refers to the margin present below the limit line at the particular frequency.
4. EMI receiver Resolution Bandwidth (RBW) and Video Bandwidth (VBW) settings:

9kHz - 150kHz

RBW: 100Hz VBW: 300Hz

150kHz - 30MHz

RBW: 10kHz VBW: 30kHz

30MHz - 1GHz

RBW: 120kHz VBW: 1MHz

>1GHz

RBW: 1MHz VBW: 1MHz

5. The upper frequency of radiated emission investigations was according to requirements stated in Section 15.33(a) for intentional radiators & Section 15.33(b) for unintentional radiators.

6. The channel in the table refers to the transmit channel of the EUT.

7. Radiated Emissions Measurement Uncertainty

All test measurements carried out are traceable to national standards. The uncertainty of the measurement at a confidence level of approximately 95%, with a coverage factor of 2, in the range 30MHz – 25GHz is $\pm 4.6\text{dB}$.

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RADIATED EMISSION (FUNDAMENTAL AND HARMONICS) TEST

47 CFR FCC Part 15.249(a) Radiated Emission (Fundamental and Harmonics) Limits

Fundamental Frequency (MHz)	Field Strength of Fundamental Limit Values @ 3m (dB μ V/m) *	Field Strength of Harmonics Limit Values @ 3m (dB μ V/m) *
902 - 928	94.0	54.0
2400 - 2483.5	94.0	54.0
5725 - 5875	94.0	54.0
24000 - 24250	108.0	68.0

* Quasi peak detector was employed for frequency up to 1GHz. For above 1GHz frequency, average detector was used. A peak limit of 20dB above the average limit does apply.

47 CFR FCC Parts 15.249(a) Radiated Emission (Fundamental and Harmonics) Test Instrumentation

Instrument	Model	S/No	Cal Due Date
Rohde & Schwarz EMI Test Receiver 20Hz – 26.5GHz	ESMI	829179/002 829179/005	28 Jul 2011
TDK RF Solutions Hybrid Log Periodic Antenna (30MHz-3GHz)	HLP-3003C	130238	19 Mar 2012
TDK RF Solution Horn Antenna (1GHz-18GHz)	HRN-0118	130256	15 Mar 2012
Schwarzbeck Horn Antenna (2-18GHz) / Pre-amplifier assembly HAP-series	BBHA 9120 C/ HAP06-18W	00000004	25 Mar 2012
Sonoma Preamplifier (9kHz – 1GHz)	310N	270640	13 Sep 2011
ETS Horn Antenna(18GHz-40GHz)(Ref)	3116	0004-2474	19 Apr 2012
Toyo Preamplifier (26.5GHz-40GHz)	HAP26-40W	00000005	19 Apr 2012

RADIATED EMISSION (FUNDAMENTAL AND HARMONICS) TEST

47 CFR FCC Part 15.249(a) Radiated Emission (Fundamental and Harmonics) Test Setup

1. The EUT and supporting equipment were set up in accordance with the requirements of the standard on top of a 1.5m X 1.0m X 0.8m high, non-metallic table.
2. The filtered power supply for the EUT and supporting equipment were tapped from the appropriate power sockets located on the turntable.
3. The relevant broadband antenna was set at the required test distance away from the EUT and supporting equipment boundary.

47 CFR FCC Part 15.249(a) Radiated Emission (Fundamental and Harmonics) Test Method

1. The EUT was switched on and allowed to warm up to its normal operating condition.
2. A prescan was carried out to pick the fundamental and harmonics emission frequencies from the EUT. For EUT which is a portable device, the prescan was carried out by rotating the EUT through three orthogonal axes to determine which altitude and equipment arrangement produces such emissions.
3. The test was carried out at the selected frequency points obtained from the prescan in step 2. Maximization of the emissions, was carried out by rotating the EUT, changing the antenna polarization, and adjusting the antenna height in the following manner:
 - a. Vertical or horizontal polarisation (whichever gave the higher emission level over a full rotation of the EUT) was chosen.
 - b. The EUT was then rotated to the direction that gave the maximum emission.
 - c. Finally, the antenna height was adjusted to the height that gave the maximum emission.
4. A Quasi-peak measurement was made for that frequency point if it was less than or equal to 1GHz. For frequency point that above 1GHz, both Peak and Average measurements were carried out.
5. Steps 3 and 4 were repeated for the next frequency point, until all selected frequency points were measured.
6. The frequency range covered was from the EUT fundamental frequency until its 10th harmonics, using the Bi-log antenna for frequencies from 30MHz up to 1GHz, and the Horn antenna above 3GHz.

Sample Calculation Example

At 300 MHz

Q-P limit (Class B) = 200 μ V/m = 46.0 dB μ V/m

Log-periodic antenna factor & cable loss at 300 MHz = 18.5 dB

Q-P reading obtained directly from EMI Receiver = 40.0 dB μ V/m
(Calibrated level including antenna factors & cable losses)

Therefore, Q-P margin = 40.0 - 46.0 = -6.0

i.e. 6 dB below Q-P limit

RADIATED EMISSION (FUNDAMENTAL AND HARMONICS) TEST



Radiated Emissions Test Setup (Front View)



Radiated Emissions Test Setup (Rear View)



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RADIATED EMISSION (FUNDAMENTAL AND HARMONICS) TEST

47 CFR FCC Part 15.249(a) Radiated Emission (Fundamental and Harmonics) Results

Test Input Power	110V 60Hz	Temperature	18°C
Test Distance	3m	Relative Humidity	58%
		Atmospheric Pressure	1040mbar
		Tested By	Jason Lai

Fundamental and harmonics field strength above 1GHz (Channel 0)

Frequency (MHz)	Peak Value (dB μ V/m)	Average Value (dB μ V/m)	Average Margin (dB)	Azimuth (Degrees)	Height (cm)	Pol (H/V)	Note
2402.0000	85.6	30.9	-63.1	354	188	V	Fundamental
4860.4450	47.6	43.2	-10.8	7	288	V	Harmonics
7198.5340	6.5	-0.1	-54.1	8	189	V	Harmonics
9609.0660	8.1	3.0	-51.0	8	189	V	Harmonics
12033.0660	7.9	-1.7	-55.7	242	288	V	Harmonics

Fundamental and harmonics field strength above 1GHz (Channel 39)

Frequency (MHz)	Peak Value (dB μ V/m)	Average Value (dB μ V/m)	Average Margin (dB)	Azimuth (Degrees)	Height (cm)	Pol (H/V)	Note
2441.0000	87.5	30.0	-64.0	7	288	H	Fundamental
4927.7780	49.1	41.1	-12.9	354	188	V	Harmonics
7360.1340	15.9	-2.4	-56.4	350	289	H	Harmonics
9824.5330	6.6	1.4	-52.6	8	187	V	Harmonics
12275.466	8.9	0.5	-53.5	353	289	V	Harmonics

Fundamental and harmonics field strength above 1GHz (Channel 78)

Frequency (MHz)	Peak Value (dB μ V/m)	Average Value (dB μ V/m)	Average Margin (dB)	Azimuth (Degrees)	Height (cm)	Pol (H/V)	Note
2480.0000	85.2	33.4	-60.6	354	400	V	Fundamental
4950.2220	48.6	41.3	-12.7	354	400	V	Harmonics
7440.9340	12.0	-2.1	-56.1	8	188	H	Harmonics
9918.8000	6.1	-0.7	-54.7	353	289	V	Harmonics
12410.1340	8.2	1.1	-52.9	353	289	V	Harmonics



RADIATED EMISSION (FUNDAMENTAL AND HARMONICS) TEST

Notes

1. All possible modes of operation were investigated. Only the worst case emissions measured, using the correct CISPR detectors, are reported. All other emissions were relatively insignificant.
2. Quasi-peak measurement was used for frequency measurement up to 1GHz. Average and peak measurements were used for emissions above 1GHz. The average measurement was done by averaging over a complete cycle of the pulse train, including the blanking interval as the pulse train duration does not exceed 0.1 second.
3. A "-ve" margin indicates a PASS as it refers to the margin present below the limit line at the particular frequency.
4. EMI receiver Resolution Bandwidth (RBW) and Video Bandwidth (VBW) settings:
30MHz - 1GHz
RBW: 120kHz VBW: 1MHz
>1GHz
RBW: 1MHz VBW: 1MHz
5. The upper frequency of radiated emission investigations was according to requirements stated in Section 15.33(a) for intentional radiators & Section 15.33(b) for unintentional radiators.
6. The channel in the table refers to the transmit channel of the EUT.
7. Radiated Emissions Measurement Uncertainty
All test measurements carried out are traceable to national standards. The uncertainty of the measurement at a confidence level of approximately 95%, with a coverage factor of 2, in the range 30MHz – 25GHz is $\pm 4.6\text{dB}$.

This Report is issued under the following conditions:

1. Results of the testing/calibration in the form of a report will be issued immediately after the service has been completed or terminated.
2. Unless otherwise requested, this report shall contain only technical results carried out by TÜV SÜD PSB. Analysis and interpretation of the results and professional opinion and recommendations expressed thereupon, if required, shall be clearly indicated and additional fee paid for, by the Client.
3. This report applies to the sample of the specific product/equipment given at the time of its testing/calibration. The results are not used to indicate or imply that they are applicable to other similar items. In addition, such results must not be used to indicate or imply that TÜV SÜD PSB approves, recommends or endorses the manufacturer, supplier or user of such product/equipment, or that TÜV SÜD PSB in any way "guarantees" the later performance of the product/equipment. Unless otherwise stated in this report, no tests were conducted to determine long term effects of using the specific product/equipment.
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10. Unless otherwise stated, the tests were carried out in TÜV SÜD PSB Pte Ltd, No.1 Science Park Drive Singapore 118221.

March 2010

FCC LABEL & POSITION

ANNEX B

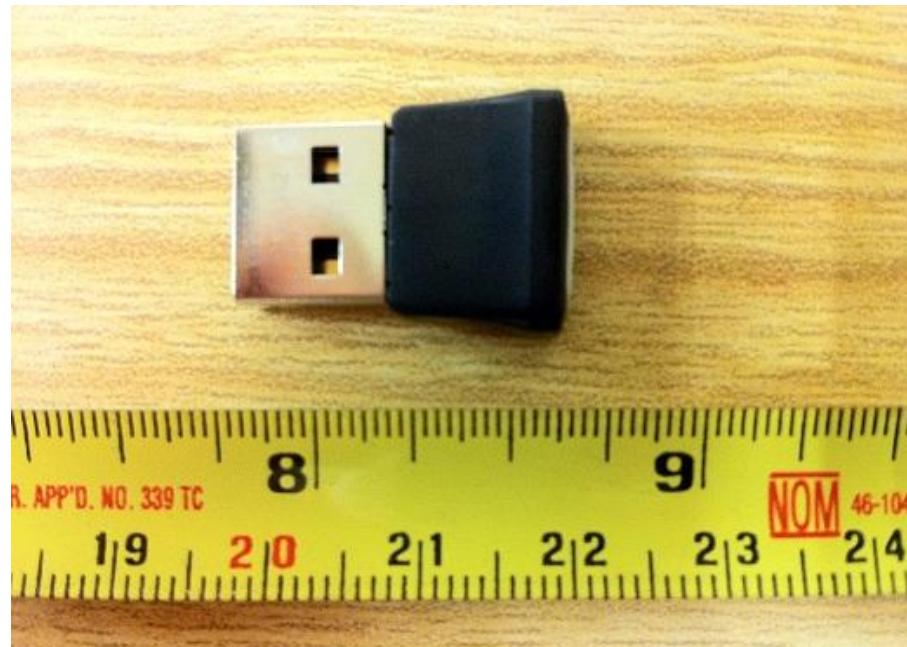


ANNEX A
EUT PHOTOGRAPHS / DIAGRAMS
TÜV
SÜD

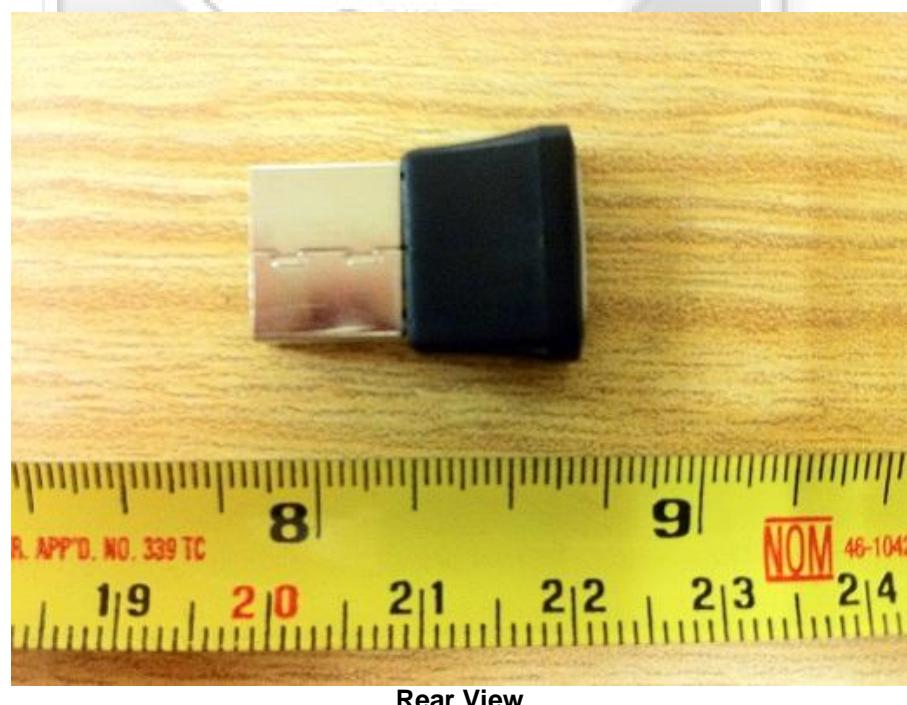
EUT PHOTOGRAPHS / DIAGRAMS

ANNEX A

EUT PHOTOGRAPHS



Front View

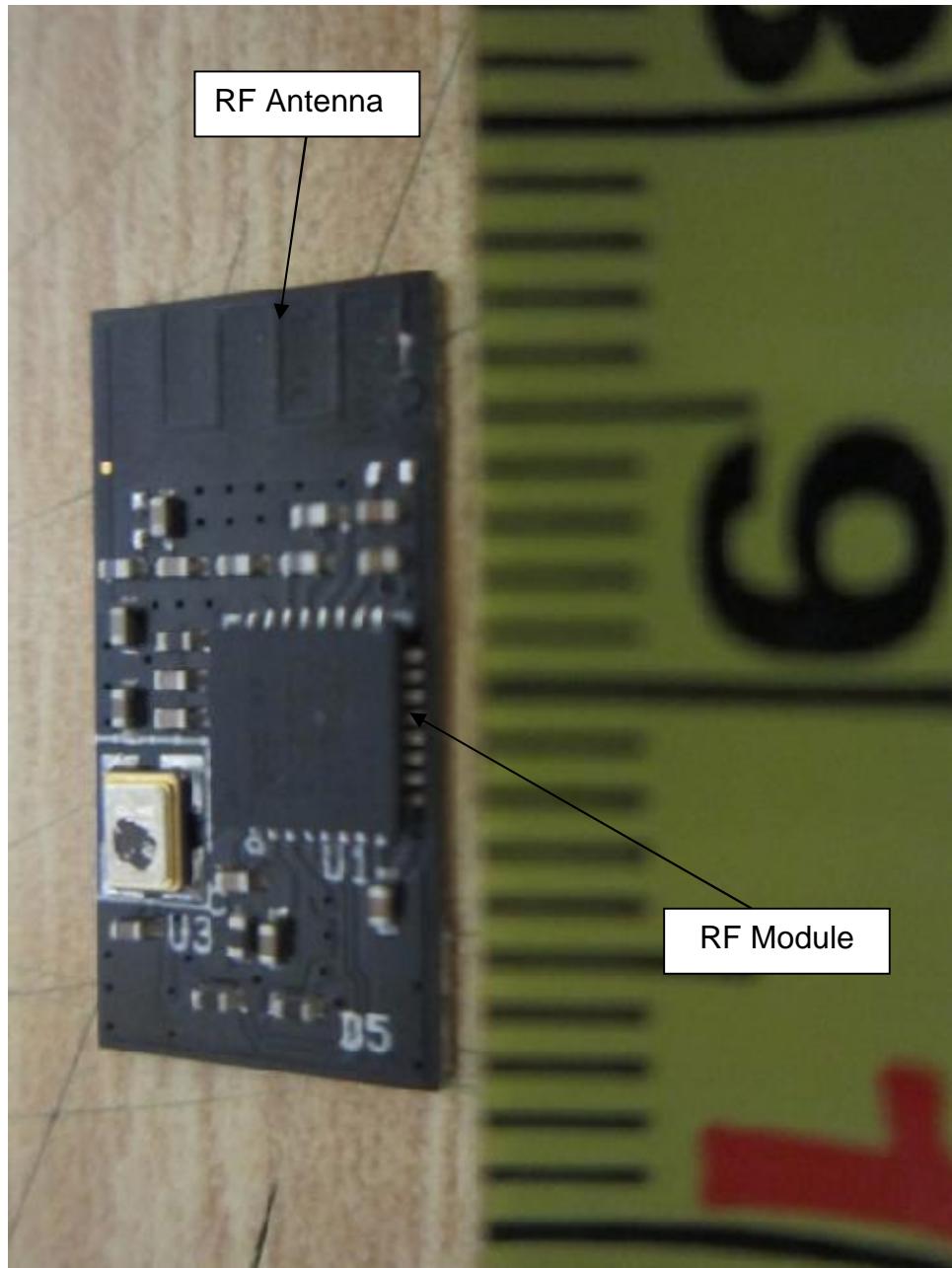


Rear View

EUT PHOTOGRAPHS / DIAGRAMS

ANNEX A

EUT PHOTOGRAPHS

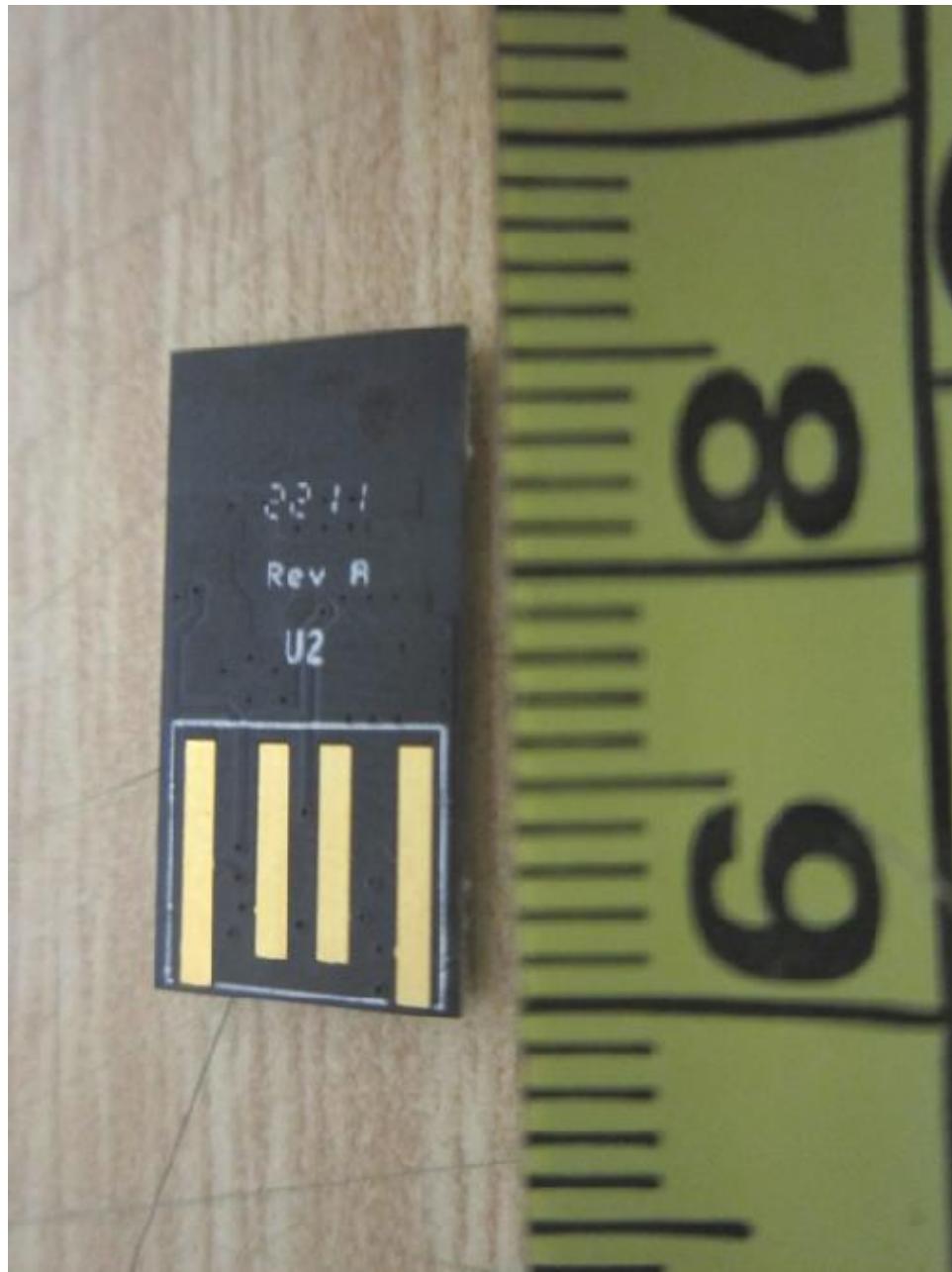


Main-Board PCB Component Side

EUT PHOTOGRAPHS / DIAGRAMS

ANNEX A

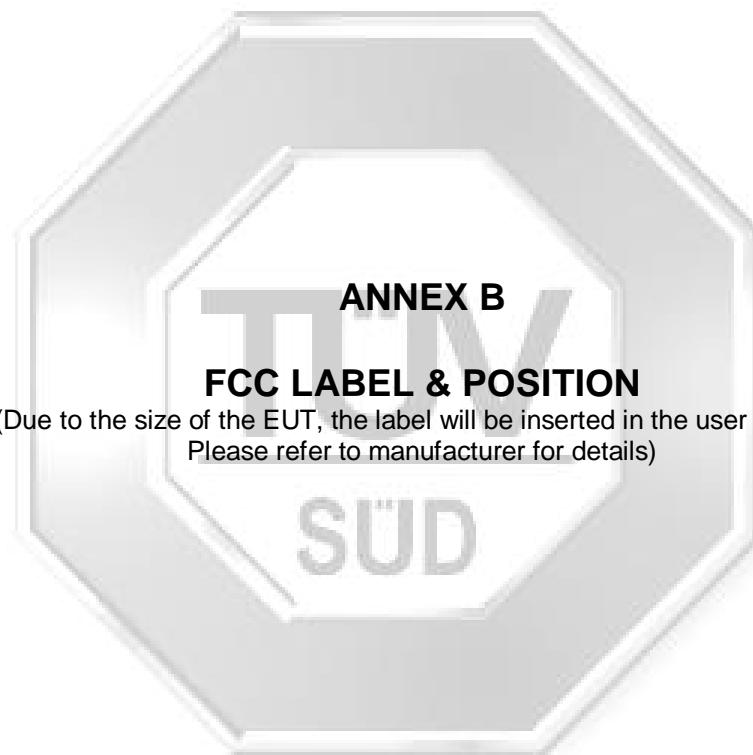
EUT PHOTOGRAPHS



EUT PCB Trace Side

FCC LABEL & POSITION

ANNEX B



**USER MANUAL TECHINCAL DESCRIPTION BLOCK
& CIRCUIT DIAGRAM**

ANNEX C

